

AMENDMENT TO THE CLAIMS:

This listing of claims will replace all prior listings of claims in the application:

LISTING OF CLAIMS:

1-234. (PREVIOUSLY CANCELLED)

235. (CURRENTLY AMENDED) An isolated nucleic acid sequence which encodes a human hT1R2 taste receptor, wherein said hT1R2 nucleic acid sequence is selected from the following:

(i) a nucleic acid sequence which encodes the human T1R2 polypeptide contained in SEQ ID NO: 21;

(ii) a nucleic acid sequence encodes a polypeptide having at least 95% sequence identity to the human T1R2 polypeptide contained in SEQ ID NO: 21;

~~(iii) a nucleic acid sequence which hybridizes to the human T1R2 encoding nucleic acid sequence contained in SEQ ID NO: 20 under stringent hybridization conditions which consist of hybridization in 50% formamide, 5xSSC and 1% SDS, incubating at 42°C, with wash in 0.2 x SSC and 0.1% SDS at 65°C, wherein said hybridization and wash steps are each carried out for at least 1 minute; and~~

~~(iv) the nucleic acid sequence encoding a human T1R2 polypeptide having the sequence contained in SEQ ID NO: 20.~~

236. (AMENDED HEREIN) A ~~An isolated~~ human T1R2 nucleic acid sequence which encodes the human T1R2 polypeptide contained in SEQ ID NO: 21.

237. (PREVIOUSLY AMENDED) The human T1R2 nucleic acid sequence of Claim 235 which encodes a human T1R2 polypeptide which possesses at least 95% sequence identity to the human T1R2 polypeptide contained in SEQ. ID NO: 21.

238. (PREVIOUSLY AMENDED) The human T1R2 nucleic acid sequence of Claim 235 which encodes a human T1R2 polypeptide which possesses greater than 95% sequence identity to the human T1R2 polypeptide contained in SEQ ID NO: 21.

239. (PREVIOUSLY PRESENTED) The human T1R2 nucleic acid sequence of Claim 235 which encodes a human T1R2 polypeptide which possesses greater than 96% sequence identity to the human T1R2 polypeptide contained in SEQ ID NO: 21..

240. (PREVIOUSLY PRESENTED) The human T1R2 nucleic acid sequence of Claim 235 which encodes a human T1R2 polypeptide which possesses at least 97% sequence identity to the human T1R2 polypeptide contained in SEQ ID NO: 21.

241. (PREVIOUSLY ADDED) The human T1R2 nucleic acid sequence of Claim 235 which encodes a human T1R2 polypeptide which possesses at least 98% sequence identity to the human T1R2 polypeptide contained in SEQ ID NO: 21.

242. (PREVIOUSLY ADDED) The human T1R2 nucleic acid sequence of Claim 235 which encodes a human T1R2 polypeptide which possesses at least 99% sequence identity to the human T1R2 polypeptide contained in SEQ ID NO: 21.

243. (PREVIOUSLY ADDED) The human T1R2 nucleic acid sequence of Claim 235 which encodes a human T1R2 polypeptide which possesses greater than 99% sequence identity to the human T1R2 polypeptide contained in SEQ ID NO: 21.

244. (PREVIOUSLY PRESENTED) The human T1R2 nucleic acid sequence of claim 235 which is a genomic sequence.

245. (PREVIOUSLY ADDED) The human T1R2 nucleic acid sequence of claim 235 which is a cDNA.

246. (PREVIOUSLY ADDED) The human T1R2 sequence of claim 235 which is an isolated mRNA.

247. (PREVIOUSLY PRESENTED) The human T1R2 nucleic acid sequence of claim 235 which is operably linked to a nucleic acid sequence that facilitates the transcription of said human T1R2 nucleic acid sequence.

248. (PREVIOUSLY PRESENTED) The human T1R2 nucleic acid sequence of claim 235 which is operably linked to a sequence that facilitates the surface expression of human T1R2 polypeptide by a host cell containing said nucleic acid sequence.

249. (PREVIOUSLY PRESENTED) The human T1R2 nucleic acid sequence of claim 248 wherein said sequence that facilitates surface expression is from a mammalian rhodopsin gene.

250. (PREVIOUSLY PRESENTED) The human T1R2 nucleic acid sequence of claims 235 which is contained on a nucleic acid sequence that further comprises a nucleic acid sequence which encodes a detectable marker.

251. (PREVIOUSLY PRESENTED) The human T1R2 nucleic acid sequence of claim 250 wherein said detectable marker is a green fluorescent protein.

252. (PREVIOUSLY PRESENTED) The human T1R2 nucleic acid sequence of claim 235 which is operably linked to a constitutive promoter.

253. (PREVIOUSLY PRESENTED) The human T1R2 nucleic acid sequence of claim 235 which is operably linked to a regulatable promoter.

254. (PREVIOUSLY AMENDED) A human T1R2 nucleic acid sequence according to claim 235 which is contained on a nucleic acid construct.

255. (PREVIOUSLY AMENDED) The human T1R2 nucleic acid sequence containing construct of claim 254 wherein said G protein is selected from the group consisting of Galpha15 and Galpha16..

256. (PREVIOUSLY CANCELLED)

257. (PREVIOUSLY ADDED) The human T1R2 nucleic acid sequence containing construct of claim 254 which is a plasmid.

258. (PREVIOUSLY ADDED) The human T1R2 nucleic acid sequence containing construct of claim 254 which is a viral vector.

259. (PREVIOUSLY ADDED) The human T1R2 nucleic acid sequence containing construct of claim 254 which comprises a gene encoding a detectable marker.

260. (PREVIOUSLY ADDED) The human T1R2 nucleic acid sequence containing construct of claim 254 wherein said human T1R2 nucleic acid sequence is operably linked to a promoter.

261. (PREVIOUSLY ADDED) The human T1R2 nucleic acid sequence containing construct of claim 260 wherein said promoter is constitutive.

262. (PREVIOUSLY ADDED) The human T1R2 nucleic acid sequence containing construct of claim 260 wherein said promoter is regulatable.

263. (PREVIOUSLY ADDED) The human T1R2 nucleic acid sequence containing construct of claim 254 wherein said human T1R2 nucleic acid sequence is operably linked to a nucleic acid sequence that encodes a polypeptide that facilitates the surface expression of said human T1R2 polypeptide in a host cell containing the vector.

264. (PREVIOUSLY ADDED) The human nucleic acid sequence containing construct of claim 263 wherein said polypeptide that facilitates surface expression is a mammalian rhodopsin polypeptide.

265. (PREVIOUSLY ADDED) The human T1R2 nucleic acid sequence containing construct of claim 264 wherein said mammalian rhodopsin is bovine rhodopsin.

266. (PREVIOUSLY CANCELLED)

This amendment is submitted to correct the typographical error in the Sequence Listing and to amend claim 235 and cancel claims 1-234, 254, 255, 265 and 266.

In particular, claim 235 has been amended exactly in accord with the telephonic interview. All claims recite SEQ ID NO: 21.

The undersigned telephoned Examiner Brannock and advised of the submission of this 312 Amendment, correcting the sequence misidentified in the application and amending the claims. This submission should not raise any issues that will affect the patentability of the claimed invention.

The examiner is encouraged to contact Robin L. Teskin at 202-419-2018 if there are any outstanding matters in connection with the filing of this 312 amendment.

Request for Entry

For all the reasons set forth above, Applicants respectfully requests that this Amendment be considered and entered into the record prior to issuance.

CONCLUSION

Applicants believe that no fee is due with the submission of this paper. However, in the event any variance exists, Applicants hereby authorize the Commissioner to charge or credit undersigned's **Deposit Account No. 50-0206** to cure any such underpayments of overpayments of fees as required in conjunction with this filing.